



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/634,983	08/05/2003	Joseph A. Swift	D/A2211Q	6955

25453 7590 05/04/2006

PATENT DOCUMENTATION CENTER  
XEROX CORPORATION  
100 CLINTON AVE., SOUTH, XEROX SQUARE, 20TH FLOOR  
ROCHESTER, NY 14644

EXAMINER

DIXON, MERRICK L

ART UNIT	PAPER NUMBER
----------	--------------

1774

DATE MAILED: 05/04/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/634,983

Applicant(s)

SWIFT ET AL.

Examiner

Merrick Dixon

Art Unit

1774

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 24 February 2006.  
2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.  
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-27 is/are pending in the application.  
4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.  
5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.  
6) ☒ Claim(s) 1-27 is/are rejected.  
7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.  
8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.  
10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

  
MERRICK DIXON  
PRIMARY EXAMINER

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)  
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)  
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 8/5/03; 1/17/06.  
4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.  
5) ☐ Notice of Informal Patent Application (PTO-152)  
6) ☐ Other: \_\_\_\_\_.

Art Unit: 1774

Applicants' remarks of 2-24-06 are considered. Claims 1-27 are to be examined.

1. Claims 1-27 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claim 1, line 18, the phrase, "the imaginary axis" lacks proper antecedent basis.

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1,2,5-27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Amarasekera et al(US 6689835 B2).

The cited reference teaches the claimed invention including an apparatus comprising members comprising conductive fibers of specific dimensions, and coating thereon- col 6, lines 11-60; col 1, lines 38-52; col 3, lines 1-11; col 5, lines 41-57; abstract. It is submitted that indeed the conductive fibers would form matrix configurations between a expectant imaginary axis of same, in the absence of unexpected results. Concerning claim 2, the reference teaches pultruded fibers- col 4, lines 40-46; col 7, lines 64-67; col 8, lines 2-19. concerning claim 6, the reference teaches openings- col 5, lines 9-22. concerning claims 7 and 27, the reference teaches utility in circuit members- see abstract. Concerning claim 8-11, the reference teaches exposed and coated fiber members- col 6, lines 54; col 5, lines 54-60; col 8, lines 3-20. The reference teaches nonconductive fibers associated with conductive fibers- abstract, as required by claim

Art Unit: 1774

12. Concerning claim 5, the reference's product would inherently possess lumen (light output) as circuit boards always do. The reference teaches electroplating in col 3, lines 1-20 as required by claim 13. the reference teaches metal members in col 4, lines 40-51 as required by claims 14 and 15. the reference teaches similar weight for coating material in col 5, lines 6-col 6, line 5 and required by claims 17- 21- col 3, lines 46-54; col 4, lines 17-24; col 5, lines 23-27; col 6, lines 21-28.

4. Claims 3,4,16, and 24-26 rejected under 35 U.S.C. 103(a) as being unpatentable over Amarasekera et al(US 6689835 B2) in view of Bluett et al(US 6214921 B1).

The primary reference substantially teaches the claimed invention as discussed above, inter alla. the primary reference, however, fails to teach the aspect of fibrillating its fibers ends. The secondary reference to Bluett et al, however, teaches that it is known in the art to have fibers ends fibrillated in apparatus as taught by the primary reference- col 3, lines 6-30.; col 5, lines 27-32. It would have been obvious to one of ordinary skill in the art at the time the invention is made to combine the teachings of the secondary reference and fibrillate the primary references fibers, in the absence of unexpected results motivated by the desire to increase fiber contacts- col 4, lines 59-67. concerning claim 16, the secondary reference teaches electrical circuit in col 4, line 30-35, it is submitted such circuit inherently includes eutectic metal alloys as claimed. Concerning claim 4, the secondary reference teaches similar shaped fibers in col 5, lines 51-60. Concerning claims 24-26, the secondary reference teaches such fibrillated fibers comprised exposed conductive fibers- col 5, lines 51-60. the reference teaches it would

Art Unit: 1774

be within the art to cut same fibers to specific lengths, it is submitted, to similarly claimed dimensions- col 5, lines 61-65. the reference teaches current of electric circuit as claimed in col 4, lines 29-45.

5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Brent ( US 5095253) is cited of interest to show the state of the art..

Applicants who wish to send a facsimile (draft copies) for the examiner's immediate review can do so by using the Examiner's personal fax number at 571-273-1520. The faxing of all papers must conform with the notice published in the Official Gazette, 1096 O.G. 30 ( November 15, 1989). **NOTE: All facsimiles sent to the examiner's personal fax number should be in draft-forms and will be treated as informal.**

**Same facsimiles will not be entered** in the related applications unless otherwise agreed and noted by the examiner.

**The fax number for all other fascimile is 571-273-8300.**

Information about **the status of an application** may be obtained from the Patent Information Retrieval system (**Private PAIR**).

Art Unit: 1774

Status inquires for **published applications** may be retrieved from either **Private PAIR** or **Public PAIR**. Questions about the PAIR system should be directed to the Electronic Business Center at **866-217-9197**.

Any questions concerning the instant communication should be directed to Examiner Dixon, at 571-272-1520, Mondays, Wednesdays and Thursdays, between 12 noon and 8 PM, eastern time .

A handwritten signature in black ink, appearing to read 'Merrick Dixon', with a long horizontal flourish extending to the right.

Merrick Dixon

Primary Examiner

Group 1700